

REMARKS

Claims 1 and 2 are rejected under 35 U.S.C. §103(a) as being unpatentable over Massengale et al. (U.S. Patent Number 5,686,521) ("Massengale") in view of Takagi et al., U.S. Patent Application Publication No. US 2003/0130405 A1 ("Takagi"). Claim 2 is rejected under 35 U.S.C. §103(a) as being unpatentable over Massengale in view of Takagi and further in view of Kinoshita et al. (U.S. Pre-Grant Publication Number 2002/0139961) ("Kinoshita"). Claim 4 is rejected under 35 U.S.C. §103(a) as being unpatentable over Massengale in view of Takagi and further in view of Kubotera et al. (U.S. Patent Number 6,540,945) ("Kubotera").

In the present Action, the Office is relying on Takagi as teaching the use of carbon fibril in a thermoplastic resin composition to provide improved volume resistivity and electrostatic properties. The Office's position is that it would have been obvious for a person of ordinary skill in the art to substitute the carbon fibril of Takagi for the carbon fiber of Massengale for the purpose of providing improved volume resistivity and electrostatic properties.

Reconsideration of this rejection is respectfully requested. The Office has not shown that the prior art provides a proper

motive to modify the milled carbon fiber reinforced polymer composition of Massengale as proposed in the Action.

It is well-established that a prior art reference cannot be properly modified if the proposed modification would destroy the invention on which the reference is based. See *Ex parte Hartmann*, 186 USPQ 366 (Bd. App. 1974) ("Reynolds cannot properly be combined with Graham et al. relative to the employment of continuous monofilaments, since to do so would destroy that on which the invention of Graham et al. is based, namely, the use of very short fibers"). The invention of Massengale is the discovery that the use of milled carbon fiber (MCF) provides a fiber reinforced polymer having increased abrasion resistance, which also dissipates static, excellent friction and wear characteristics and low outgassing. (Col. 1, lines 12-18). Massengale describes:

"Milled carbon fibers (MCF) are added to the base resin as a reinforcing filler. The use of the MCF rather than other reinforcing filler helps reduce inconsistent part shrinkage in both the flow and cross flow directions during the injection molding process. When the composition of the present invention is employed for application in the semiconductor processing field, such as for the preparation of semiconductor wafer cassettes and/or wafer transport boxes, it is preferable that milled carbon fibers of high purity be employed."

(Col. 2, lines 52-61) (Emphasis added).

The Office has not shown that the substitution of the carbon fibril of Takagi for the carbon fiber of Massengale (or the

combination of the carbon fibril of Takagi with the milled carbon fiber of Massengale) would, contrary to the description in Col. 2, lines 52-61, of Massengale, be reasonably expected to maintain the improved properties of the composition of Massengale. For this reason alone the combination of Massengale and Takagi (with or without the other references cited in the Action) do not properly support a case of *prima facie* obviousness of the claims of the present application.

Notwithstanding the failure of the cited references to support a case of *prima facie* obviousness, the comparative data in the present application show that the use of carbon fibril as recited in the claims of the present application in a resin composition comprising a synthetic resin having a melting temperature of at least 300°C, as compared to the use of carbon fiber or carbon black, provides unexpected results. These data rebut any *prima facie* obviousness alleged to be supported by the cited references.

Applicants note that the Office, in the "Response to Arguments" section of the Action, states that the composition of "Massengale in view of Takagi will exhibit comparable properties as shown in the Examples of the present invention ...". (Action, page 6, lines 7-8, emphasis added). This is not the proper test for determining unobviousness. It is, of course, apparent that the

composition of Massengale modified as proposed in the Action to include the carbon fibril of Takagi, if a composition within the scope of the claims of the present application, will exhibit the same properties as the composition of the present invention as shown in the Examples.

For this reason also, the 35 U.S.C. § 103(a) rejection is improper and should be removed.

Moreover, new claims, claims 5-7, have added to the application. New claim 5 limits the resin composition from which the transport and storage carrier for semiconductor members is molded to one consisting essentially of a synthetic resin having a melting temperature of at least 300°C and the specified carbon fibril. I.e., new claim 5 by the use of the terminology "consisting essentially of" excludes from its scope components such as carbon black which would materially affect the novel and basic characteristics of the transport and storage carrier for semiconductor members of the claim.

Carbon black is a required component (component C) of the composition of Takagi. The invention of Takagi is the combined use of component C and a conductive carbon black having a larger specific surface area than that of component C or hollow carbon fibril (component D). Any modification of a composition in the

prior art alleged to be supported by the teachings of Takagi would require the use of such combination.

Regarding the effect of the use of carbon black in the transport and storage carrier for semiconductor members of claim 5, the attention of the Office is directed to the data relating to Comparative Example 2 in Tables 1, 2 and 3 of the specification of the present application. Table 1 shows that carbon black was used in Comparative Example 2 in place of the carbon fibril used in Example 1. The data of Table 2 show that Comparative Example 2 was inferior to Example 1 in abrasion wear and depth of wear. The data of Table 3 show that Comparative Example 2 was inferior to Example 1 in resistance to washing.

Claims 1, 2 and 4-7 are patentable under 35 U.S.C. § 102 and 35 U.S.C. § 103(a). A notice of allowability is believed to be in order and is respectfully requested.

The foregoing is believed to be a complete and proper response to the Office Action dated November 28, 2005, and is believed to place this application in condition for allowance. If, however, minor issues remain that can be resolved by means of a telephone interview, the Examiner is respectfully requested to contact the undersigned attorney at the telephone number indicated below.

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RESPONSE UNDER 37 C.F.R. \$1.111

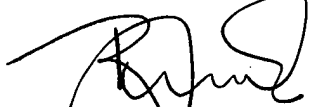
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In the event that this paper is not considered to be timely filed, applicants hereby petition for an appropriate extension of time. The fee for any such extension may be charged to our Deposit Account No. 111833.

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Respectfully submitted,

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